CLAIMS

1.   A method of treating a fabric by impregnation with a metal peroxide, characterized in that it consists in applying to a fabric, for example a de-sized and/or previously bleached hydrophilic one, whose weft (or inversely whose warp) consists of threads made of natural or artificial cellulose fibers:
   - impregnation (I) with a metal peroxide, leaving the weft (or inversely the warp) of the fabric free for a period of time necessary for the swelling of the fiber constituting the weft (or inversely the warp) of the fabric and for the modification of the cellulose,
   - at least one relaxation (III) with no weft tension (or inversely with no warp tension) by passage in air during which the weft (or inversely the warp) swells and then assumes its spring shape, after shrinkage,
   - at least one rinsing,
   - at least one washing,
   - at least one squeezing.

2.   The method as claimed in claim 1, characterized in that the peroxide used is caustic soda at 14 to 25° Baumé.

3.   The method as claimed in one of claims 1 or 2, characterized in that the time of alkaline contact at 14 to 25° Baumé is less than 5 minutes.

4.   The method as claimed in one of claims 1 to 3, characterized in that it comprises, after the impregnation (I), at least a first vigorous squeezing (II) out of the product, followed by a first relaxation passage (III) in air.

5.   The method as claimed in one of claims 1 to 4, characterized in that a weft (or inversely a warp)

consisting of artificial fiber such as Tencel® is used.

6. The method as claimed in one of claims 1 to 4, characterized in that a weft (or inversely a warp) consisting of natural fibers such as linen is used.

5 7. The method as claimed in one of claims 1 to 6, characterized in that a fabric is used whose construction allows the weft (or inversely the warp) to swell.

8. A machine for treating a fabric of the type
10 comprising an impregnation station with a tank (1) containing a peroxide, characterized in that:
- it is designed for the implementation of the method as claimed in claims 1 to 7,
- it principally and successively comprises:
15 • an impregnation station,
 • at least a first squeezing station (3),
 • at least a first relaxation station (4),
 • possibly a direction-changing roller or mangle (5), possibly filled with peroxide,
20 • possibly a second squeezing station (6),
 • possibly a second relaxation station (7),
 • possibly a rinsing station (8),
 • one or two washing stations (9) (10),
 • a final squeezing station (11),
25 • a rolling up station,
 • means of regulating the speed of progress of the fabric capable of managing the duration of impregnation with caustic soda and the duration of relaxation in air.

30 9. A cellulose-based fabric whose weft consists of cellulose fibers that are not naturally elastic, characterized in that it is rendered elastic by a treatment based on metal peroxide having modified the cellulose in order to give it shape memory.

10.   The cellulose-based fabric as claimed in claim 10, characterized in that it is rendered elastic in the weft direction by a treatment with a metal peroxide and in that its straight warp is tense whereas the weft is undulated and has been fixed in a spring state.

11.   The cellulose-based fabric as claimed in one of claims 10 or 11, characterized in that it is obtained by a method as claimed in one of claims 1 to 7.

12.   A cellulose-based fabric whose warp consists of threads made of cellulose fibers that are not naturally elastic, characterized in that it is rendered elastic by a treatment based on metal peroxide having modified the cellulose in order to give it shape memory.

13.   The cellulose-based fabric as claimed in claim 12, characterized in that it is rendered elastic in the warp direction by a treatment with a metal peroxide and in that its straight weft is tense whereas the warp is undulated and has been fixed in a spring state.

14.   The cellulose-based fabric as claimed in one of claims 12 or 13, characterized in that it is obtained by a method as claimed in one of claims 1 to 7.